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Rhubarb Culture

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CONTENTS

Rhubarb Culture

Rhubarb is one of the most important vegetable perennial crops. It is one of the easiest vegetables to grow; space for a few plants can be found in almost any garden.

The demand for the product in the fresh condition in the early spring is enormous and large quantities of it are utilized for canning. Much of the so-called fresh rhubarb pie we buy at hotels and restaurants is made from the canned product. The roots, also, are extensively forced during the winter and early spring months.

Rhubarb is supposed to possess considerable medicinal value as a tonic. Its acid flavor is especially acceptable in early spring.

Climatic Requirements

Rhubarb is essentially a cool weather crop, and under Ohio conditions, goes into a more or less quiescent state during the hot summer months. It is not successfully grown in the southern states except in the higher altitudes. On the Pacific coast, however, it seems to thrive, and that region is the source of a large supply of the early product for shipment. In California the plants rest during the hot, dry summers and make vigorous growth during the mild, rainy, winter season.

The underground portion of the rhubarb plant is extremely frost hardy. The leafy portion, however, is unable to withstand a temperature of more than three or four degrees below freezing.

Cool temperatures during the growing season are conducive to the highest development of rich red color in the leaf petioles. High temperatures tend to induce green colored stalks in all varieties.

An abundance of moisture is one of the characteristic requirements of this plant.

Soils

Rhubarb is peculiarly adapted to the loamy types of soil—sandy and silt loams being preferred. Other types of soil may be used, but less successfully. The soil must be deep, well drained, and filled with organic matter and plant food. There are few crops capable of withstanding some abuse that respond so well to special care as regards soil environment as rhubarb.

Preparation of the Soil

In preparation for setting a rhubarb plantation the soil should be deeply plowed, preferably in the fall following a heavy application of manure. It is almost impossible to get too much manure in the soil for this crop; all that can be turned under successfully will prove valuable in the growth of the marketable product.

In the case of manurial scarcity, clover or other soiling crops may be plowed under, and an application of commercial fertilizer made before the soil is disced in preparation for the setting of the roots. The final preparation should be deep and thorough, so as to secure a finely pulverized mellow soil.

Propagation of Rhubarb

Rhubarb may be propagated either by seed or by division of the crowns, the latter being by all means preferable from the standpoint of uniform quality of the product. The seed of rhubarb is produced primarily as the result of cross pollination, consequently seedling plants do not come true to the form of the mother plant. As a matter of fact, the divergent characteristics of the remote as well as immediate parentage are to be found expressed by the wide variation in any lot of seedling plants. Growing the roots from seed has the advantage of economy and rate of multiplication, but for best results is only to be resorted to for purposes of plant breeding.

Scarcely one seedling in ten will possess the most desirable qualities, though it does not follow that the remaining nine are worthless; they simply are inferior and variable. The Victoria variety is credited with reproducing most nearly true to type.

In propagating by the means of seed the latter may be sown in hotbeds or cold frames in early spring and the seedlings so produced transferred to nursery rows in the open field in early summer. The seed may also be drilled fairly thickly in rows 18 inches apart in the open ground as early as the soil can be prepared, and the seedlings thinned to about 6 inches apart in the rows. The resulting roots of either procedure may then be utilized as indicated under "Planting."

Propagation by division is the only certain means of producing a marketable product of uniform quality as to flavor, texture, and color. Dividing the crowns for the production of new plant units is a very simple matter. For best results four or five-year-old roots are taken up and so divided by means of a sharp spade as to secure at least one eye or growing point for each section of

root. From three to a half dozen such divisions may be secured from a single crown.

Planting

The setting of the plants may be done successfully in late autumn or early spring, according to soil and labor conditions. While rhubarb roots are tenacious of life, they should not be subjected to unnecessary delay or exposure in transferring them to their new location. The roots should be planted in rows 3½ to 4 feet apart and spaced about 30 inches apart in the row. The crowns should be one to two inches below the soil level. Depending somewhat upon the size of the roots and the condition of the soil, the roots may either be planted in trenches opened by a stirring plow or a single shovel plow, or set in holes formed by means of a spade. The latter method will be satisfactory for smaller roots or on smaller areas.

The soil at transplanting time should be mellow and moist, and should be carefully compacted about the roots so as to leave no air pockets in contact with them. Such air pockets are conducive to mold and subsequent decay of the crowns. For best results the crowns should be divided every four or five years, and a new plantation started, and where roots are desired for forcing a new bed must be started annually.

Fertilizers for Rhubarb

As already indicated, rhubarb is a heavy feeder, and for the production of large stalks of good quality the plants must be well nourished. Manure, if available, is undoubtedly the best source of food when incorporated with the soil in advance of planting, and also when used as a mulch. Three or four inches of manure applied between the rows every two years in early winter, will create conditions favoring maximum growth of leaf stalks of attractive color and tender quality. Care should be taken to mulch the crowns lightly. The mulch not only supplies plant food but tends to keep the soil cool and conserves moisture, and is especially desirable on the lighter soils.

If manure is not available in quantity, the use of commercial fertilizers must be resorted to. A complete fertilizer of about a 4-10-6 proportion, applied at the rate of 1000 pounds per acre in early spring and cultivated into the soil, will be valuable. A top dressing of nitrate of soda or sulfate of ammonia at the rate of 300 to 400 pounds per acre in late summer, to stimulate active fall

growth, will be very desirable. The early spring growth is largely produced out of the reserve food stored in the fleshy roots during the preceding season; consequently, every facility must be provided to encourage just as large a food storage as possible.

Harvesting

None of the leaf stalks should be pulled the first season after planting, but harvesting may begin the next spring. In harvesting, it is advisable to grasp the leaf stalk with the thumb and last three fingers and thrust the forefinger down along the inside of the stalk below the surface of the soil in order to better detach the stalk from the crown without breaking.

Harvesting will begin just as early as the stalks are long enough, and may be continued for several weeks or as long as the demand is good and the size of the stalks satisfactory.

It is best to follow a regular schedule in harvesting, picking all marketable stalks from each hill and then allowing new growth to develop for another picking a week or ten days later. Such a practice will yield a greater amount of tender stalks than the promiscuous pulling without reference to sequence.

Grading and Bunching

The stalks should be gathered and taken indoors as quickly as possible. The leaf blades should be trimmed off neatly a short distance beyond the petiole. In the case of the very early product trimming of the slightly expanded leaves may not be necessary.

The stalks should be well washed and trimmed at the base, graded according to size and color, and tied in bunches with colored string or tape. From three to a half dozen stalks will form a bunch, depending upon stalk size and season of year. Where large quantities are to be bunched a special tying machine can be economically used.

For wholesaling, the bunches should be tied up in dozens according to grade.

Cultivation

If mulching is practiced there will be no occasion to cultivate, as the mulch will smother all weed growth and keep the soil mellow. In larger fields where the manure supply may not be adequate to provide a mulch, it will be necessary to cultivate sufficiently to control weeds. Level shallow culture should be practiced in order not

to injure the mass of feeding roots near the soil surface. It may be necessary to resort to an occasional hand hoeing to eliminate weeds coming up between the plants in the row.

Removal of Seed Stalks

Seed stalk production is an environmental and varietal characteristic, some varieties producing few seed stalks, others many. The seed stalks should be cut or broken off just as soon as they appear, in order to conserve the energy of the crown. Plants on which seed is permitted to develop necessarily utilize much of their substance in maturing the seed.

Varieties of Rhubarb

There are but few distinct varieties of rhubarb, and much confusion exists in gardening literature regarding the same. In the east there are two outstanding varieties of merit—Linnaeus and Victoria.

Linnaeus is the standard early variety, with leaf stalks of rather small size, but numerous, and of bright color. The skin is thin and the quality is excellent. It is a profitable variety for early markets, but too small to compete with the larger varieties later in the season.

Victoria is a midseason variety, about one week later than Linnaeus. It has large leaf stalks which are a bright clear red. The stalks are crisp, tender, juicy, and fine flavored. It is an excellent variety for market or home use. It is also a favorite variety with the canners. It has greater tendency to come true to form from seed than other varieties.

The Strawberry variety is apparently of similar characteristics to Linnaeus.

Mammoth Red is a later variety than the preceding. It is a rank grower, with stalks rather numerous, short, and thick and deep red in color. The texture and flavor is not quite as good as the smaller sorts, but it has a very attractive appearance and is a heavy cropper. It is an excellent forcing variety.

The Giant Cherry is a very promising newer variety on the Pacific coast and is worthy of trial in the east. The petioles are very long and thick, free from fiber, and deep red in color throughout their length. It is said to be less acid than other varieties, and shows somewhat less tendency to develop seed stalks as grown in California.

Giant Crimson (Winter) is evidently similar to Victoria.

Rhubarb Pests

Fortunately, neither diseases nor insects are usually troublesome. If the crowns are not taken up and divided rather frequently there may be a tendency for decay to set in.

Crown rot and foot rot are similar diseases but caused by different organisms, which sometimes develop considerable damage. They are essentially soft rot organisms attacking the crowns. They are spread by the division of diseased crowns in planting new beds. Disease free plants should be used for propagation by division.

The rhubarb curculio or snout beetle sometimes punctures the stalks of the rhubarb, but usually after the marketing season is over. Such punctures are for the purpose of egg laying and cause the exudation of much sap. Fortunately, the eggs do not hatch when deposited in the stalks of rhubarb. The chief host plant is dock and all such plants should be destroyed before the grub-like larvæ emerge in midsummer.

Producing Early Rhubarb

In the home garden a very attractive early product may be secured by placing nail kegs or similar enclosures over rhubarb roots in early spring, and surrounding same with manure. Gunny sacks or other material may be used for covers. The leaf stalks will grow rapidly with slight development of the blades, and the stalks will have a rich red color. Later, the covering may be removed and the plants allowed to develop more naturally.

Commercial growers attain somewhat similar results by placing loose piles of strawy manure over the hills when growth has started. The mulch partially excludes the light, protects the stalks against the late frosts, and produces an early product corresponding in a measure to the popular indoor forced article.

Roots designed for forcing or for heavy early outdoor harvesting should be given every opportunity to store up reserve food in the autumn. Consequently, no stalks should be harvested in the fall.